ABSTRACT

[0097] A metal part is uniformly cooled by uniformly breaking a vapor film formed when a cooling liquid vaporizes on a surface of the metal part. Oscillations are applied to the vapor film formed on the surface of the metal part, whereby the vapor film is broken without the stirring of a cooling liquid 1. The cooling liquid 1 is stirred after the vapor film begins to be broken, whereby bubbles formed by the breakage of the vapor film are caused to diffuse in the cooling liquid 1.